REMARKS

Claims 1-4, 6, 9, 11-18, 20, 23, 25-32, 34, 37, and 39-43 are pending. Claims 1, 15, and 29 are being amended. Claims 7-8, 21-22, and 35-36 are being canceled. Claims 5, 10, 19, 24, 33, 38, and 44 were previously canceled.

No new matter is being entered. Support for the language added to claims 1, 15, and 29 can be found in original claim 8, page 15, line 25 – page 16, line 13, and Figure 4.

Claims 1, 3-4, 6-9, 11-15, 17-18, 20-23, 25-29, 31-32, 34-37, and 39-42 were rejected under 35 U.S.C. § 103 as being unpatentable over 35 U.S.C. § 5,926,573 to Kim et al. ("Kim") in view of U.S. Patent No. 6,445,828 to Yim.

Kim and Yim do not teach or suggest the invention recited in claim 1, as amended. Amended claim 1 recites a process that includes:

subjecting said inverse-quantized second portions of the first resolution to motion compensation in a DCT domain to obtain motion-compensated second portions of the first resolution;

subjecting said motion-compensated second portions to a first operation of modification of the resolution … to obtain resolution-modified second portions in the second resolution …;

storing said resolution-modified second portions; and

obtaining resolution-remodified second portions by subjecting the stored resolution-modified second portions to a second operation of modification of the resolution that brings back the resolution of the stored data from said second resolution to said first resolution, wherein subjecting said inverse-quantized second portions of the first resolution to motion compensation in the DCT domain includes using the resolution-remodified second portions as a prediction signal when motion compensating said inverse-quantized second portions of the first resolution.

Kim and Yim do not teach or suggest such motion compensation and resolution modification steps. As recognized by the Examiner, Kim does not teach motion compensation. Yim also does not teach or suggest motion compensation. Instead, Yim includes an inverse motion compensator block 220 (Fig. 2) that constructs a DCT prediction block based on a DCT

reference frame and a motion vector. Such a step does not compensate for any motion or otherwise perform motion compensation, but instead simply changes the format of the DCT blocks.

Even if Yim had suggested motion compensation, Kim and Yim still would not suggest performing motion compensation on second portions using, as a prediction signal, resolution-remodified second portions that were subjected to two resolution modifications: from a first resolution to a second resolution and back to the first resolution. The Examiner notes that Yim stores input and output video streams 210, 212 in Figure 2 and that Yim teaches both upscaling and downscaling by a factor of two, but that does teach or suggest the motion compensation and resolution modification steps of claim 1 for at least two reasons. First, Yim mentions that the video frame 600 could be upsized or downsized, but Yim nowhere suggests that the same video frame should be both upsized and downsized. Second, even if the downsized output video stream 212 were fed back into the partial video decoder 204 as an input video stream, that still would not suggest upsizing the video stream and using the upsized video stream as a prediction signal for the motion compensation. The transform domain editing unit 206 that does the re-sizing is positioned only after the inverse motion compensator 220, and thus cannot both downsize and upsize the video data to obtain a prediction signal used by the inverse motion compensator 220. In contrast, the embodiment of the invention shown in Figure 4 of the present application shows both a downsample filter 118 connected to the output of the motocompensation module 122 and an upsample filter 120 connected to an input of the motocompensation module 122.

For the foregoing reasons, amended claim 1 is nonobvious in view of Kim and Yim.

Claims 3-4, 6, 9, and 11-14 depend on claim 1, and thus, are also nonobvious in view of the prior art.

Although the language of claims 15, 17-18, 20-23, 25-29, 31-32, 34-37, and 39-42 is not identical to that of claim 1, the allowability of those claims will be apparent in view of the above discussion.

Claims 2, 16, and 30 were rejected under 35 U.S.C. § 103 as being unpatentable over Kim and Yim in view of U.S. Patent No. 6,590,938 to Azadegan et al. ("Azadegan"). Claim 43 was rejected under 35 U.S.C. § 103 as being unpatentable over Kim and Yim in view of U.S. Patent No. 6,058,143 to Golin.

Azadegan and Golin do not teach or suggest the elements of independent claims 1, 15, and 29 that are not taught or suggested by Kim and Yim. In particular, neither Azadegan nor Golin for suggest motion compensation using, as a prediction signal, data that has been motion compensated and subjected to two resolution modifications. Accordingly, claims 2, 16, 30, and 43 are nonobvious in view of the cited prior art.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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